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ab Plane Point Contact Spectroscopy of Co-doped Iron Pnictide Superconductors JOHN TIMMERWILKE, J.S. KIM, G.R. STEWART, AMLAN BISWAS, Dept. of Physics, University of Florida — Point contact measurements on iron-based superconductors provide valuable information about these new superconductors, including gap sizes, number of gaps, and gap symmetries. We use a point contact apparatus capable of taking measurements in the abplane using a tungsten wire lowered mechanically onto a superconducting sample. Using this method allows us to measure the variation of superconducting gap(s) with Z, a dimensionless barrier strength parameter. Previous point contact measurements have shown Co-doped iron pnictide superconductors to be a two gapped material. Our measurements confirm the presence of two gaps in single crystal $Ba(Fe_{0.926}Co_{0.074)_2}As_2$ and the Z variation of the measurements imply the gaps are isotropic. Acknowledgments: NSF DMR-0804452, DOE contract # DE-FG02-86ER45268

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